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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,107	05/08/2008	Friedhelm Rosemann	7196-000026/US/NP	9350

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EXAMINER

BAISA, JOSELITO SASIS

ART UNIT	PAPER NUMBER
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2832

MAIL DATE	DELIVERY MODE
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08/25/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,107	Applicant(s) ROSEMANN ET AL.	
	Examiner JOSELITO BAISA	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>07/21/06, 01/17/07 and 06/02/10</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 4, 8 and 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The limitations:

- "...at least one of the partial layer is formed as a foil..." of claim 4,
 - "...the foil includes an arrangement of openings at regular intervals in particular in the form of a lattice net." of claim 8, and
 - "...electrically conductive layer is roll formed from a flat material, such that an overlapping of the material occurs at the adjoinment area..." of claim 9,
- are not supported by the Specification.

Claim Objections

2. Claim 10 is objected to because of the following informalities: Applicant has to make clear if "the layer" recited in line 5 of claim 10 is the same as "the electrically conductive layer" in line 3. Appropriate correction is required.

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3. There is insufficient antecedent basis for this limitation "the contact" in line 3 of claim 10.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5, 6, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skinner et al. [6360706] in view of Moga et al. [6463918].

Skinner discloses an ignition coil for an internal combustion engine comprising with a pencil coil with a primary winding, a low voltage connection area for the connection of the primary winding to a low voltage as shown in Figure 1, a secondary winding 64 that is inductively coupled with the primary winding to provide a high voltage for a spark plug of the internal combustion engine, and a high voltage connection area as shown in Figure 1, in which the secondary winding 64 contacts the spark plug 14, wherein an electrically conductive, substantially cylinder 18 formed layer with mechanical dampening properties is located within an annular space defined by the outermost winding of the two windings, and wherein the electrically conductive layer 18 is formed as a sandwich structure comprising at least two partial layers (outer and inner surface layer) with an electrically conductive intermediate layer (layer in between the inner and outer layer) with mechanical dampening characteristics lying there between.

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Skinner discloses the instant claimed invention discussed above except for the primary and secondary winding showing a respective primary and secondary cylindrical coil bases, concentrically positioned to each other.

Moga discloses primary and secondary winding coaxially (concentrically) arranged showing a respective primary and secondary cylindrical coil bases (i.e., spool 28 for secondary and primary winding has an option to be in a spool as indicated in column 3, line 56) [Col. 2, Lines 51-63, Figure 1].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use coaxially arranged windings as taught by Moga to the ignition coil of Skinner since Skinner uses a pencil type coil.

The motivation would have been to provide a better inductive relationship between the primary winding, the core and the secondary winding [Col. 4, Lines 7-21, Figure 1].

Regarding claim 5, Skinner discloses the intermediate layer (layer between the inner and outer of electrically conductive layer 18) is conductive [Col. 5, Lines 1-5].

Regarding claim 6, Skinner discloses the electrically conductive intermediate layer 18 is electrically coupled with the ground of the ignition coil [Col. 5, Lines 1-5].

Regarding claim 9, Skinner discloses the electrically conductive layer 18 is roll formed from a flat material, such that an overlapping of the material occurs at the adjoinment area [Col. 4, Lines 27-35, Figure 5].

Regarding claim 10, Skinner discloses a contact of the electrically conductive layer 18 with one of the two windings (i.e., 64) is achieved through a separate contact means, in particular

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a supply lead, which the layer 18 and the corresponding winding enclose [Col. 4, Lines 7-15, Figure 1] .

5. Claims 2, 3 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skinner in view of Moga as applied to claim 1 above, and further in view of Park [7123121].

Regarding claim 2, Skinner in view of Moga discloses the instant claimed invention discussed above except for the electrically conductive layer is located in an annular space located between the primary winding and the secondary winding.

Park discloses electrically conductive layer 603 is located in an annular space located between the primary winding 604 and the secondary winding 602 [Col. 5, Lines 25-43, Figure 6].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use an electrically conductive layer or shield as taught by Park to the structure of Skinner in view of Moga.

The motivation would have been to reduce the displacement current flowing directly between input and output windings [Col. 5, Lines 38-39].

Regarding claim 3, Park discloses the electrically conductive layer 603 surrounds a magnetic core disposed within the innermost winding of the two windings (604, 602) [Col. 1, Lines 36-45].\

Regarding claim 11, Skinner in view of Moga discloses the instant claimed invention discussed above except for the contact of the electrically conductive layer with one of the two

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windings is achieved through direct contact of a conductive portion of the layer with an un-insulated portion of the corresponding winding.

Park discloses electrically conductive layer (i.e., 402) with one of the two windings (i.e., 405) is achieved through direct contact of a conductive portion of the electrically conductive layer 402 with an un-insulated portion of the corresponding winding (i.e., 405) [Col. 4, Lines 37-57].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use an electrically conductive layer having contact with a corresponding winding as taught by Park to the Structure of Skinner in view of Moga.

The motivation would have been to reduce displacement current flowing between primary and secondary winding, which is a common mode noise [Col. 4, Lines 50-57].

6. Claims 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skinner in view of Moga as applied to claim 1 above, and further in view of Takahara et al. [4586015].

Skinner in view of Moga discloses the instant claimed invention discussed above except for at least one of the partial layers is formed as a foil.

Takahara discloses one of the partial layers of an electrically conductive layer 7' is formed as a conductive film 11 or foil (partial layer) [Col. 3, Lines 20-26, Figure 6].

It would have been obvious to one having ordinary skill in the art at the time of the invention to use a conductive film for a partial layer as taught by Takahara to the electrically conductive layer of Skinner in view of Moga.

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The motivation would have been for electrically interconnecting segmented portion of a shield or electrically conductive layer [Col. 3, Lines 20-26, Figure 6].

Regarding claim 7, Takahara discloses the electrically conductive layer includes a slot 8 running in the lengthwise direction [Col. 1, Lines 41-45, Figure 5].

The motivation of having a slot would have been to electrically shut off with a discontinuity on the electrically conductive layer to prevent the formation of the short circuit for the voltage generated on the electrically conductive layer [Col. 4, Lines 50-55].

Regarding claim 8, Takahara discloses the foil or conductive film 11 includes an arrangement of openings at regular intervals as shown in Figures 6 and 7, in particular in the form of a lattice net.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSELITO BAISA whose telephone number is (571)272-7132.

The examiner can normally be reached on M-F 5:30 am to 2:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on (571) 272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Anh T. Mai/
Primary Examiner, Art Unit 2832

/J. B./
Examiner, Art Unit 2832